

FIG. 1

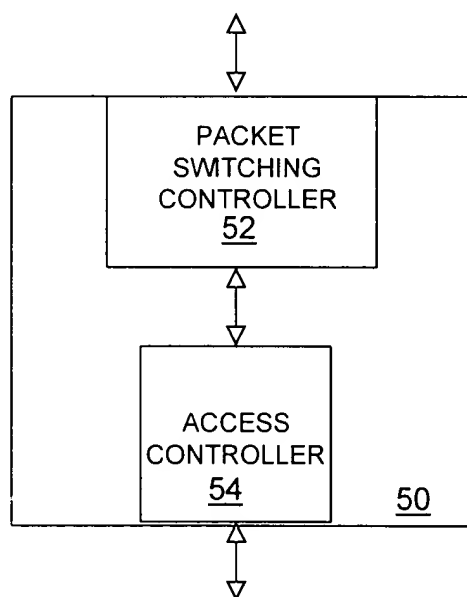


FIG. 2

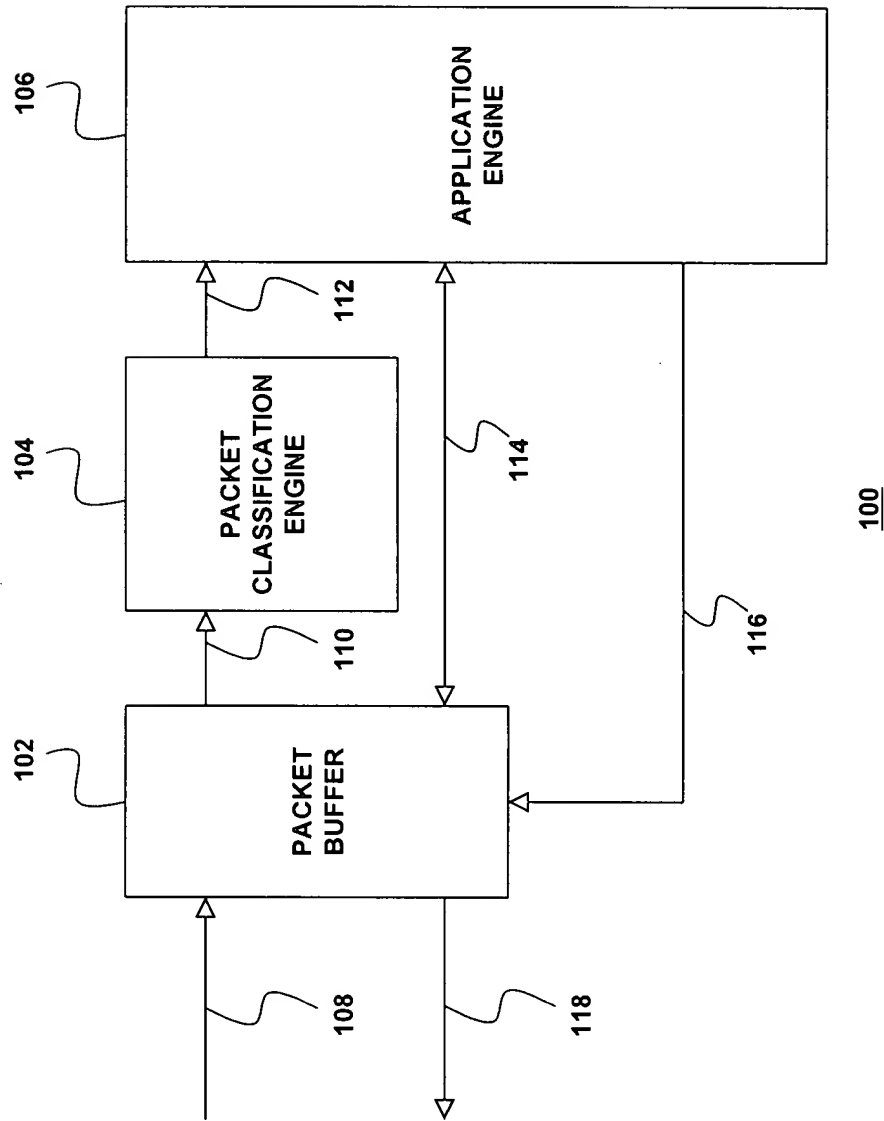


FIG. 3

FIG. 4 is a block diagram of a system for processing schema programs. The system includes a KEY BUILDER (152) and a LOOKUP TABLE (154). The KEY BUILDER (152) receives input from a FROM CLASSIFICATION ENGINE (156) and a TO/FROM HEADER DATA CACHE (158). The KEY BUILDER (152) outputs data to the LOOKUP TABLE (154) via a connection (162). The LOOKUP TABLE (154) outputs data to a bus (164). The bus (164) is connected to a bus (150) which is connected to a bus (160). The bus (160) is connected to a bus (150) which is connected to a bus (164).

SCHEMA  
PROGRAMS

160

FROM  
CLASSIFICATION  
ENGINE

156

KEY  
BUILDER

152

TO/FROM  
HEADER DATA  
CACHE

158

LOOKUP  
TABLE

154

162

164

150

FIG. 4

202			204		206		208	
SCHEMA TYPE	KEY	KEY CONTROL	APPLICATION DATA					
TYPE I SOURCE; CUSTOMERS IDENTIFIED BY VLAN	VLAN ID [12], APP ID [7], I	A	POLICE ID [17], COL [2], RE, QoS CP[6], Q, CO, PAYLOAD ID [20], PO, AP, ACCT FMT [2]					210
TYPE II SOURCE; CUSTOMERS IDENTIFIED BY IP SOURCE ADDRESS	VLAN ID [12], APP ID [7], IPSA [32], I	IPSA MASK [6]	CV, FA, VLAN ID CHK [12], POLICE ID [17], COL [2], RE, QoS CP [6], Q, CO, PAYLOAD ID [20], PO, AP, ACCT FMT [2], CUST ID [6], S1, MR, F, HS					212
TYPE III SOURCE + DESTINATION; CUSTOMERS IDENTIFIED BY MAC SOURCE ADDRESS	VLAN ID [12], MAC [48], APP ID [7], I	A	V S PORT [5], POLICE ID [17], COL [2], RE, QoS CP [6], Q, CO, PAYLOAD ID [20], PO, AP, ACCT FMT [2], CUST ID [6], S1, MR, F, HS, ST, HD					214
TYPE IV MPLS; CUSTOMERS IDENTIFIED BY MPLS LABEL	VLAN ID [12], LABEL [20], I		VL, L3 PROTO [4], POLICE ID [17], COL [2], RE, QoS CP [6], Q, CO, PAYLOAD ID [20], PO, AP, ACCT FMT [2], CUST ID [6], S1, MR, F, HS, HD					216
TYPE V SOURCE + DESTINATION; CUSTOMERS IDENTIFIED BY FULL BGP REVERSE PATH LOOKUP	IPDA [32], IPSA [32], D PORT [16], S PORT [16], T, I	IPDA MASK [5], FL	PATH COUNT [3], PAYLOAD ID [20], PO, AP, ACCT FMT [2], CUST ID [6], S1, MR, F, HS, HD					218
TYPE VI DESTINATION; IP MULTICAST ROUTING	IPMA [32], VLAN ID [12], IPSA [32], I	MASK [7]	PAYLOAD ID [20], HD					220
TYPE VII DESTINATION; FULL LENGTH IPv6 ROUTING	IPV6DA [128]	IPDA MASK [7]	PAYLOAD ID [20], HD					222

200

FIG. 5

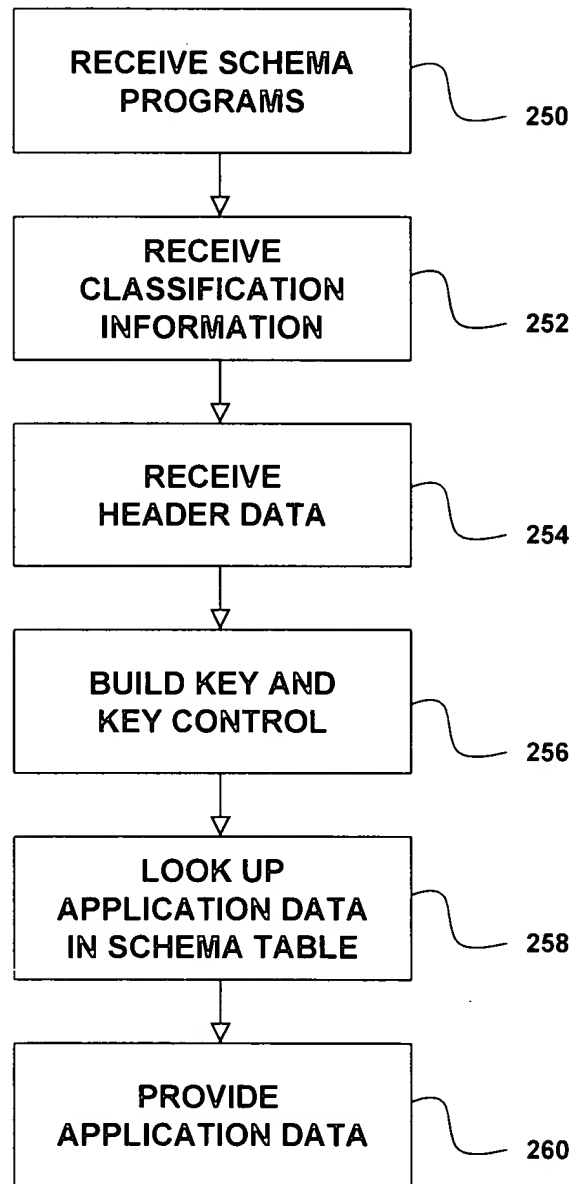


FIG. 6